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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,987	07/22/2003	Christopher Hofmeister	390P011010-US (PAR)	8171
2512	7590	11/16/2004	EXAMINER	
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			ADAMS, GREGORY W	
			ART UNIT	PAPER NUMBER

3652

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,987

Applicant(s)

HOFMEISTER ET AL.

Examiner

Gregory W. Adams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-38 and 40-42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-38, 40-42 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Referring to pages 10, 14, 32 and 35 unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-38,40-42 rejected under 35 U.S.C. 102(e) as being anticipated by Mizokawa et al. (US 2002/0150448).

4. With respect to claim 1, referring to FIGS. 1-10 Mizokawa et al. disclose a substrate processing apparatus 2 having a transport chamber 14, linear slot 11, holding modules 4 located on one side of slot 11 and connected to transport chamber 14, another module A,B,C,D connected to transport chamber 14, and transport vehicle 13 having base 12,13, and arm 45.

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5. With respect to claim 2, referring to FIGS. 1-10 Mizokawa et al. disclose an apparatus 2 having a processing module and load lock module. Page 2, para. 0029, Ins. 5-8.
6. With respect to claim 3, referring to FIGS. 1-10 Mizokawa et al. disclose two load lock modules. Page 2, para. 0029, Ins. 5-8.
7. With respect to claim 4, referring to FIGS. 1-10 Mizokawa et al. disclose two processing modules. Page 2, para. 0029, Ins. 5-8.
8. With respect to claim 5, referring to FIGS. 1-10 Mizokawa et al. disclose another module A,B,C,D connected to transport chamber 14. Page 2, para. 0031, Ins. 6-7.
9. With respect to claim 6, referring to FIGS. 1-10 Mizokawa et al. disclose a transport chamber 14 connecting holding module 4 with other module A,B,C,D.
10. With respect to claim 7, referring to FIGS. 1-10 Mizokawa et al. disclose a rotatable arm 45 for transport vehicle 13.
11. With respect to claim 8, referring to FIGS. 1-10 Mizokawa et al. disclose a linear motor 12,41,43 for driving transport vehicle 13.
12. With respect to claim 9, referring to FIGS. 1-10 Mizokawa et al. disclose an electric motor 12,41,43 connected to a directionally articulating arm 45.
13. With respect to claim 10, referring to FIGS. 1-10 Mizokawa et al. disclose a substrate processing apparatus 2 comprising a transport chamber 14 with openings 16A,16B,16C,16D, processing module A,B,C,D, module 4 for holding substrate, transport vehicle 13, base 12,13, arm 45 for transferring substrate from transfer chamber 14 and processing module A,B,C,D. Page 3, para. 0035, Ins. 6-8.

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14. With respect to claim 11, referring to FIGS. 1-10 Mizokawa et al. disclose an opening 16A,16B,16C in transport chamber 14. It is noted that Mizokawa et al. do not prescribe an opening less door where an environment separate from the processing chamber A,B,C,D necessitates sealing the environment.

15. With respect to claim 12, referring to FIGS. 1-10 Mizokawa et al. disclose an apparatus wherein transport chamber 14 has an isolated environment. Page 2, para. 0032, Ins. 8-9.

16. With respect to claim 13, referring to FIGS. 1-10 Mizokawa et al. disclose a tubular transport chamber 14. It is noted that "tubular", of or relating to a tube, defines a tunnel. The American Heritage® Dictionary of the English Language, Fourth Edition, Copyright © 2000 by Houghton Mifflin Company.

17. With respect to claim 14, referring to FIGS. 1-10 Mizokawa et al. disclose a transport chamber 14 with environment. Page 2, para. 0032, Ins. 8-9.

18. With respect to claim 15, referring to FIG. 4 Mizokawa et al. disclose a tubular transport chamber 14 where module 4 is connected to transport chamber 14 side.

19. With respect to claim 16, referring to FIG. 4 Mizokawa et al. disclose base 12,13 interacting with transport chamber 14 wall to movably support the transport vehicle 13.

20. With respect to claim 17, referring to FIGS. 5,7 Mizokawa et al. disclose a linear motor 12,41,43 connected to transport chamber 14 that drives transport vehicle 13 and for movement of arm 45.

21. With respect to claim 18, referring to FIGS. 1-10 Mizokawa et al. disclose a solid state motor 12,41,43. Page 3, para. 0036, Ins. 17-18.

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22. With respect to claim 19, referring to FIGS. 1-10 Mizokawa et al. disclose a linear motor 12,41,43 that extends along a portion of the transport chamber 14 and a least a portion of other module 4.

23. With respect to claim 20, referring to FIGS. 1-10 Mizokawa et al. disclose a semiconductor workpiece processing apparatus 2 comprising a first chamber 14, transport vehicle 13, base 12,13, arm 45, another chamber A,B,C,D connected to first chamber 14 through openings 16A,16B,16C,16D creating a first chamber environment, page 2, para. 0032, Ins. 8-9.

24. With respect to claim 21, referring to FIGS. 1-10 Mizokawa et al. disclose an opening 16A,16B,16C in transport chamber 14. It is noted that Mizokawa et al. do not prescribe an opening less door where an environment separate from processing chamber A,B,C,D necessitates sealing said environment.

25. With respect to claim 22, referring to FIGS. 1-10 Mizokawa et al. disclose an apparatus wherein transport chamber 14 has an isolated environment separate from that of other chamber A,B,C,D. Page 2, para. 0032, Ins. 8-9.

26. With respect to claim 23, referring to FIGS. 1-10 Mizokawa et al. disclose a tubular first chamber 14 and a linear travel path 11. It is noted that "tubular", of or relating to a tube, defines a tunnel. The American Heritage® Dictionary of the English Language, Fourth Edition, Copyright © 2000 by Houghton Mifflin Company. Other chamber A,B,C,D is/are connected to lateral sides of first chamber 14.

27. With respect to claim 24, referring to FIGS. 1-10 Mizokawa et al. disclose for transport vehicle 13 a path defined by first chamber 14 and other chamber A,B,C,D.

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28. With respect to claim 25, referring to FIGS. 1-10 Mizokawa et al. disclose a first chamber 14 environment, page 2, para. 0032, Ins. 8-9, different than other chamber A,B,C,D.

29. With respect to claim 26, referring to FIGS. 1-10 Mizokawa et al. disclose a tube shaped first chamber 14 with sides and a other chamber A,B,C,D, connected to first chamber 14 lateral sides.

30. With respect to claim 27, referring to FIGS. 5,7 Mizokawa et al. disclose a base 12,13 interacting with at least one wall of first chamber 14 to support transport vehicle 13 from first chamber 14.

31. With respect to claim 28, referring to FIGS. 1-10 Mizokawa et al. disclose a linear motor 12,41,43 connected to first chamber 14 and for multi-axis movement of arm 45.

32. With respect to claim 29, referring to FIGS. 5,7 Mizokawa et al. disclose a linear motor 12,41,43 extending in first chamber 14 and other chamber A,B,C,D.

33. With respect to claim 30, referring to FIGS. 5,7 Mizokawa et al. disclose a linear motor 12,41,43 with a forcer component 41 and a reactive component 42.

34. With respect to claim 31, referring to FIGS. 1-10 Mizokawa et al. disclose a reactive component 42 on transport vehicle 13 and a force component 41 for supporting transport vehicle 13 in first chamber 14.

35. With respect to claim 32, referring to FIGS. 1-10 Mizokawa et al. disclose an arm 45 and end effector 45a for moving substrate. Page 3, para. 0035, Ins. 6-8.

36. With respect to claim 33, referring to FIGS. 1-10 Mizokawa et al. disclose a circular moving arm 45.

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37. With respect to claim 34, referring to FIGS. 1-10 Mizokawa et al. disclose another processing module A,B,C,D, attached to first chamber 14.

38. With respect to claim 35, referring to FIGS. 1-10 Mizokawa et al. disclose an other chamber A,B,C,D processing chamber. Page 2, para. 0031, Ins. 6-7. Moreover, while Mizokawa et al. does not prescribe so lithography, metal deposition, etching, and/or heating/cooling modules are common to the art of substrate processing.

39. With respect to claim 36, referring to FIGS. 1-10 Mizokawa et al. disclose a stocker 4.

40. With respect to claim 37, referring to FIGS. 1-10 Mizokawa et al. disclose a load lock 4.

41. With respect to claim 38, referring to FIGS. 1-10 Mizokawa et al. disclose an interface 16A,16B,16C,16D between the front end module A,B,C,D, first chamber 14.

42. With respect to claim 40, referring to FIG. 9 Mizokawa et al. disclose a substrate processing apparatus 2 comprising a transport chamber 14 with several paths 11AM,11NZ, holding module 4, first transport vehicle 12A with arm 45 and second transport vehicle 12B with arm 45.

43. With respect to claim 41, referring to FIG. 9 Mizokawa et al. disclose alignment of the travel paths 11AM, 11NZ.

44. With respect to claim 42, referring to FIG. 9 Mizokawa et al. disclose travel paths 11AM,11NZ that extend lengthwise.

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Conclusion

45. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 6,235,634 to White et al.

46. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (703) 305-0555. The examiner can normally be reached on M-F, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on (703) 308-3248. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GWA



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